NASA INVENTIONS AND CONTRIBUTIONS BOARD
SPACE ACT AWARD CASE REEVALUATION FORM

NASA Case Number	*Title*	*Date*
ARC- 14785	The Collaborative Information Portal	April 3, 2006

Contributor Name	*Employer*	*Percentage of Contribution*
Joan D. Walton	NASA Ames	20
Leslie Keely	NASA/Ames	20
Sandra Johan	NASA Ames	20
Ronald Mak	UARC	20
John Schreiner	NASA Ames	20

Change in Case Status:

Has there been a significant change in the value of this contribution since the last evaluation? Please elaborate by describing the increased significance from a technological, scientific, humanitarian or commercial point of view. Has further development of this contribution occurred? Has usage by NASA, other government agencies or commercial entities increased? Describe any enhancements.

The Collaborative Information Portal (CIP) is Class A, Mission–Critical software deployed as part of the Mars Exploration Rovers (MER) Ground Data System (GDS) on November 3, 2003. The CIP supported the Nominal Mission (90 Mars-Days) flawlessly, enabling mission control and local and remote science teams to more effectively manage and perform time-critical processes and activities for the twin-rovers in two different Martian time zones, along with navigating and retrieving enormous quantities of mission information and data files. The highly successful MER mission continues to this day, having experienced several mission extensions. The MER mission (now in its third year) has increased its dependence upon remote distributed information management and team coordination, with CIP becoming the essential MER GDS tool supporting the distributed teams 24 hours a day, seven days a week for the three-year duration (to date) of the mission.

As of today (April 2006), CIP has exceeded its original design lifetime by a factor of four, catalogs over 8TB of data (four times the initial mission requirement), serves twice the planned mission user base, and provides support for three other MER GDS software tools. We have continued to develop the CIP software and upgraded the MER deployment to more efficiently process and distribute information to the users, providing an improved user experience with increased security, reliability and performance. The system currently supports over 275 mission facility installations and over 350 personal (office, university, and lab) installations across the United States. The MER Mission funding (baselined to continue through FY ’08) and support for CIP demonstrates its continued and growing status as an essential component of MER’s ground-based mission operations.

In addition to supporting the incredibly successful MER mission, CIP has spawned three software development efforts aimed at future missions. Each of these new efforts leverages the fundamental web-services, client-server and interactive frame-based application concept to extend the operations and science team situational awareness and information processing/handling capacity. The pioneering concepts being demonstrated by CIP today are directly impacting the design and ultimate long-term effectiveness of future distributed collaborative tools for robotic exploration missions. Thanks to CIP’s success in the MER mission, distributed collaborative tools are now recognized as essential components of ground-based mission operations. CIP-derived software systems have been base-lined for inclusion in the upcoming 2007 Phoenix mission and 2011 Mars Science Laboratory mission.

Primary Evaluator

Printed Name and Signature	Title	Comments	Date

NASA Technical Management

Printed Name and Signature	Title	Comments	Date

Awards Liaison Officer

Printed Name and Signature	Title	Comments	Date